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UNITED STATES DEPARTMENT OF AGRICULTURE S. Department of Agriculture
Weather Bureau
Washington

Office of the Chief

March 5, 1936.

CIRCULAR

CHANGES IN TRANSMISSION OF AIRWAY WEATHER REPORTS ON BUREAU
OF AIR COMMERCE TELETYPE AND RADIO CIRCUITS

1. In order to speed up relays by teletype and radio of six-hourly reports, beginning April 1, 1936, the "remarks" element contained in reports selected from certain sequences and relayed to other circuits will be omitted, i. e., the "remarks" contained in any report selected from a regular sequence for relay to other circuits will be dropped at the relay points. This will not apply where entire sequences are relayed, i.e., the "remarks" will be included in these cases. This rule will most generally be applicable to relays of sequences and selected reports made in the "6WEA" and "3WEA" schedules.

2. In order to make certain that wind-shift information is included, this datum will, beginning with April 1, 1936, be placed in the body of the report proper, following-without space or oblique-the wind element, by use of an arrow flying with the wind indicating the direction (to eight points only) from which the wind was blowing prior to the shift, followed by the local time on the 24-hour clock at which the wind shift occurred, the standard of time not to be indicated, e.g. "↑1330". The entries will be made on Forms 1130 and 1130A in the same manner. The reporting of wind shifts will continue to be made in accordance with present instructions for the reporting of these phenomena contained in Circular N, 1935, and will be included in all cases in the next hourly or special report sent by teletype or radio from any hourly reporting station. Stations transmitting observations by telephone or telegraph, including 6-hourly, will report the passage of a wind shift, occurring during the hour immediately preceding the observation in the body of the report. This will be done by entry immediately following the regular wind data in the body of the report of a word giving the direction from which the wind was blowing prior to the shift (to eight points only), followed by the words "wind shift" and the local time to the nearest hour or half-hour on the 24-hour clock at which the shift occurred, e.g., "south wind shift thirteen thirty".

3. Information concerning wind shifts that may have occurred several hours past is also of value to forecasters. Therefore, at the six-hourly periods all stations reporting by radio or teletype will include as the last item of any six-hourly data added to such reports, a group - made up in exactly the same manner as prescribed above for reporting these data in the body of the report - giving the direction of the wind prior to the shift and the time on the 24-hour clock of any wind shift that may have occurred since the last six-hourly report was made, except that if a wind shift is reported in the current observation and this is the only one that has occurred since the last six-hourly report, no group for this will be included in the six-hourly data sent with the report. Entries will be made in the same manner

at the end of the six-hourly data now placed on Forms 1130 and 1130A. For example, if a wind shift occurs in the first, second, third, fourth or fifth hours since the last six-hourly observation and is duly reported in the proper record or special observation made at those times, or is reported in a special observation during the sixth hour prior to the current observation, a group to indicate this will be included as the last item of the six-hourly data sent in the current observation, but no group will be included in the six-hourly data if the only wind shift occurring during the period is reported in the current observation. Six-hourly stations reporting by telegraph will follow the same procedure, the entries to be made as the last item of the six-hourly data in exactly the same manner as prescribed above for placing wind shift data in the body of the reports. In this connection, it has been noted that wind-shift data are rarely reported in observations from stations reporting six-hourly by telegraph. As such information is extremely important, the necessity for a conscientious effort on the part of the personnel concerned to report it fully is great and must be kept in mind at all times. Where no observer is on duty between the six-hourly observations, it is quite possible at first-order stations to ascertain the occurrence and time thereof of a wind shift during this period from inspection of the triple- or single-register sheets, or the barograph traces. This must be done in all cases.

4. Information in Circular N, 1935, relative to the identification of wind shifts should be carefully studied and adhered to.

5. In order to save teletype and radio circuit time, beginning April 1, 1936, the letters "V" and "G" will no longer be used to indicate "variable" and "gusts", respectively, in transmissions by radio and teletype of wind data in airway weather reports, including reports received by telegraph and later placed on the radio and teletype circuits in airway sequence report form. The reporting of "variable" as a wind characteristic will be discontinued entirely in all classes of reports. However, knowledge of the presence of a gusty wind is at times of importance and this information will therefore continue to be included. To do this, the "strong" and "severe" categories of gusts now identified under instructions in Circular N, 1935, are hereby combined, being identified hereafter as "strong". The two categories of gusts will thus be, "fresh" and "strong". Therefore, stations reporting by telegraph or telephone, including stations telegraphing six-hourly reports, will include data concerning gusts, when appropriate, immediately following the wind direction and velocity, by use of the words "fresh gusts" or "strong gusts" as may be appropriate. In reports from stations reporting by teletype or radio, or when reports received by telegraph or telephone are placed on teletype or radio circuits in airway sequence report form, the presence of a gusty wind will be indicated by entry of a plus (+) or minus (-) sign following the velocity, the plus sign indicating "strong gusts" and the minus sign indicating "fresh gusts".

6. For example, under the foregoing plan, a report of the following data at 10:41 a.m., E. S. T., "Ceiling 800; sky overcast; visibility 2 miles; light snow; temperature 30°; dew point 28°; wind northwest 40; strong gusts; wind shift at 10:35 a. m., shifting from south; barometer 29.90; occasional breaks west", should be reported as follows: (1) in airway sequence form, and (2) in on-call station telegraphed or telephoned report form, respectively:

1. XS 1041ES 8⊕2S- 30/28 40+ ↑1035 990 ocnl brks W
2. Eight Hundred Overcast Two Light Snow Thirty Twenty Eight Northwest Forty Strong Gusts South Wind Shift Ten Thirty Twenty Nine Ninety Occasional Breaks West

7. The same observation reported at 1:41 p. m., E. S. T., with the wind shift having occurred at 10:35 a. m., should be reported as follows: (1) in airway sequence form; (2) in six-hourly telegraphed form; and (3) in on-call station telegraphed or telegraphed or telephoned report form, respectively:

1. XS 1341ES 8⊕2S- 30/28 40+ 990 8F 10STCU R ↑2SNW 1035 OCNL BRKS W
2. Eight Hundred Overcast Two Light Snow Furdog Sanguine Strong Gusts Tusk Folk Consort Rapid Yuder South Wind Shift Ten Thirty Occasional Breaks West
3. Eight Hundred Overcast Two Light Snow Thirty Twenty Eight Northwest Forty Strong Gusts Twenty Nine Ninety Occasional Breaks West

8. To provide additional data for the preparation of check maps at the three-hourly periods at airway forecast centers, it is believed desirable that three-hour pressure change and cloud data be added to such reports. Accordingly, beginning April 1, 1936, such data will be added to those observations nearest the hours of 5 and 11 a. m. and p. m., E. S. T., by all stations now making hourly reports by teletype or radio and adding six-hourly data to those nearest the hours of 2 and 8 a. m. and p. m., E. S. T. Instructions concerning the adding of the 3-hour pressure changes and characteristics and clouds to six-hourly reports, as contained in Section XIII of Circular N, 1935, will apply without change as regards the adding of these data to the three-hourly reports, except that 5000-ft. pressures will not be included in the data from stations now authorized to include these in the six-hourly reports from those stations.

9. Further, in connection with the saving of teletype and radio circuit time, it is noted that on-call reports collected from non-teletype and non-radio stations frequently are placed in sequences in such a manner as to be interspersed with teletype and radio station reports. When relays are made of such sequences, this results in a situation whereby reports from on-call stations, which may be of little interest to stations other than those on the particular teletype or radio circuit in question, being relayed to all other circuits to which the sequence in question may be transmitted. This interferes seriously with the completion of proper relays at the six-hourly and other periods and it is believed desirable that it be eliminated by making arrangements whereby the officials (Weather Bureau or Bureau of Air Commerce) entering such reports will place them at the end of teletype sequences where they can be cut therefrom, if necessary, when relays are made. Accordingly, upon receipt of this circular, Officials in Charge of airway general supervising stations are requested to survey this situation in their districts and make arrangements with the Bureau of Air Commerce

District Managers to add such reports to the end of sequences, rather than at other points therein. If more than one station on any particular circuit collects such reports to be placed in the sequence, arrangements for a definite order of doing this should be made, the matter to be taken up with other general supervising stations that may be involved because of the circuit extending into or through those districts. If some of the on-call reports are needed on other circuits and must be relayed, proper arrangements for accomplishing this should be made, keeping in mind that all such reports are to appear at the end of the sequence of reports from radio and teletype stations. After definite arrangements have been completed, instructions concerning the procedure to be followed will be issued by the general supervising station to all stations in the district concerned, copy of such instructions to be forwarded to the Central Office and the District Manager.

10. Beginning with this circular and in all circulars issued hereafter which affect instructions contained in Circular N, information will be included concerning the paragraphs or chapters of Circular N so affected. Personnel using Circular N will then make proper notation on the margin of the page of Circular N, containing that paragraph to the effect that revised instructions are contained in another circular of certain date. This particular circular affects the following paragraphs in Circular N:

Par. 48. Addition of reporting wind shifts.

Par. 48(h). Elimination of "variable"; combining of "strong" and "severe" categories of gusts.

Par. 63. Addition of reporting wind shifts to six-hourly data.

Par. 84. Entry of wind shifts in "wind" column, and in six-hourly data.

Par. 100. Elimination of "variable"; combining of "strong" and "severe" categories of gusts; reporting of wind shifts in body of report.

Chapter XV. Addition of wind shifts to six-hourly data.

Par. 116. Changes in examples.

Par. 134(b) Elimination of "V" and "G"; combining of "strong" and "severe" categories of gusts; addition of wind shifts when appropriate.

Par. 135. Changes in examples.

Par. 146. Changes in examples.

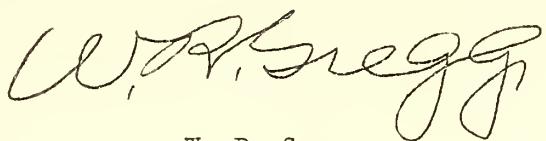
Par. 150(h) Changes in entry of data on Form 1130 to eliminate "variable" and "severe gusts"; entry of wind shifts in "Wind" column.

Par. 150(m) Addition of wind shifts when appropriate to six-hourly data entered on Form 1130A

Par. 156. Changes in entry of data on Form 1130A to conform with revised instructions.

Par. 158. Entry of wind shifts as 6-hourly data on Form 1135.

11. The cooperation of all concerned to the end that the changes outlined herein go into effect smoothly and without delay is requested.



W. R. Gregg,
Chief of Bureau.

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